

## Web of Learning - Math Tutorial Contest - Entry Form

**You may reproduce this form as needed.**

Please complete the entry form. All areas must be filled in completely to qualify for the contest.  
All application materials must be in one package.

### School Information:

School Name: \_\_\_\_\_

School Address: \_\_\_\_\_

Street Address

City

State

Zip Code

School Phone: \_\_\_\_\_ School Fax: \_\_\_\_\_

### Team Members (Must be 1 teacher and 2 - 5 students):

Teacher:

1.

Student(s):

1.

2.

3.

4.

5.

### Format (check appropriate box):

☐

Web Ready (must include hard copy, disk with material, limit of 1.2 Mb in size)

☐

Non-web ready (must include hard copy)

Over >>>>

Topics (check one per team per entry):

- ☐ 1. **Expanding  $(a + b)^n$  by the distributive law:** INT p 2 and PDF bottom P 1 through middle of p 2.
- ☐ 2 a) **Show how results of #1 leads to Pascal Triangle:** INT bottom p 2 through p 3 and PDF middle p 2 through top p3.
- ☐ 2 b) **Show how the results of #1 leads to the FOIL method.** This is not in this text, but it is in many high school algebra texts. It is frequently taught as a rule to be memorized rather than as an immediate and logical consequence of the distributive law.
- ☐ 3. **The vocabulary of binomial expansion and notation for  $n$  choose  $k$  and the relationship of these to the Pascal Triangle:** INT bottom of page 3 and p 4 and PDF bottom 2/3 of p 3 through top 1/3 of p4.
- ☐ 4. **Binomial expansion as an identity to solve problems** such as Example 1 (page 4 - PDF Version or page 5 - web site version) and problems 11-13 on page 6 (both versions).

#### Teacher Endorsement

I understand that the Los Alamos National Laboratory Web of Learning Mathematics Tutorial Contest will end on May 14, 1999, and that our team submission will be placed on the Web of Learning Web site should we be chosen as having an outstanding tutorial. All submitted material becomes the property of Los Alamos National Laboratory.

Teacher: \_\_\_\_\_  
(Signature) (Printed Name) (Date)

#### Administration Endorsement

I understand that the Los Alamos National Laboratory Web of Learning Mathematics Tutorial Contest will end on May 14, 1999, and I agree to having our school's team submission placed on the Web of Learning Web site should we be chosen as having an outstanding tutorial. All submitted material becomes the property of Los Alamos National Laboratory.

Administrator: \_\_\_\_\_  
(Signature) (Printed Name) (Date)

Please return completed entry forms and all material to:

Web of Learning - Math Tutorial Contest  
Bill Robertson, Program Coordinator  
Los Alamos National Laboratory  
PO Box 1663  
STB/SE, MS-P278  
Los Alamos, NM 87545  
Or fax: (505)-665-4093

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